

339 plant was under construction in the same city. ³¹ Completion of the latter plant would greatly enhance the importance of Ta-t'ung as a cement production center. Such a development would be highly advantageous for construction work in North and Northwest China and would make available more cement for export to Manchuria from North China.

F. The Chemical Industry

325 Since Hopei ranks first in China's salt production, the province has also developed a chemical industry, based, in the first place, on salt. The present Yung-li Company, largest manufacturer of chemicals, grew out of the Chiu-ta Salt Refinery, and the latter's name suggests its chief product.

Before the war with Japan, Yung-li had an annual capacity of 77,000 tons of soda ash and 11,000 tons of caustic soda. Production was expanded during the war and the products included soda ash, caustic soda, ammonium sulphate and chlorine gas. ³² The company was placed under joint management by the Communist government in 1952. The annual rate of soda ash production,

31. Far Eastern Economic Review, Hong Kong, Feb. 10, 1955, p. 172.

32. Yuan-li Wu, op. cit., pp. 300-301.

385 approximately 264, 000 tons in 1952, was reported to be 400 per cent greater than the peak output under the Japanese, and production of ammonium sulphate in the same year was estimated at 170 per cent of the prewar peak.

Two other chemical manufacturers came on the scene at Tangku and Han-ku during the Japanese occupation. Taken over first by the Nationalists, then by the Communists, these firms, together with two other former Japanese concerns, have become through amalgamation the second largest chemical manufacturer in Tientsin. Production shortly after the Communist occupation included solid caustic soda, magnesium hydroxide, magnesium chloride, sodium sulphate, cyanogen sulphide, hydrochloric acid, glue, bleaching powder soap, gypsum, salt, and bone meal.³³

Outside Hopei, some chemical plants are believed to be under construction at Taiyuan. But Tientsin remains the center of North China's chemical industry as well as the major chemical production center outside Manchuria.

C. Cotton Textiles

288 Heavy industry is gradually increasing in North China. In the meantime, however, further

33. Ibid.

• 385



[p. XIV]

CHAPTER VI

THE WORKERS OF THE PACIFIC ALKALI WORKS

I GENERAL FEATURES

• 385 Chiu Ta and the Pacific Works are sister factories; not only are they situated close to each other in Tangku but they are also related in their business and administrative policies. Many of the undertakings the two factories support jointly for the benefit of the workers belonging to both. It should, however, be observed that the Pacific Works has been in operation only for one year, and therefore its welfare work can not be compared with the Chiu Ta Factory which has been going for twelve years.

The early history of the Pacific Alkali Works may be traced as far back as a decade ago, for during 1916-17 the Chiu Ta Chemical Laboratory had already begun the study of the manufacturing of soda from brine. After several years of preparation, the factory buildings were constructed and completed in 1920. The capital of the Company was originally fixed at \$400,000 (silver) but it was later increased to \$3,000,000. The factory was opened in 1921 but it was subsequently closed after a few months for renovations in its equipments. It began to work in full swing only since July 1926.

The Company is presided over by a general manager. Under him are three departments; business, manufacturing and administration, each being under a chief of its own. Like Chiu Ta, the business department of the Company is located in Tientsin. The manufacturing and administrative departments are located with the factory at Tangku. The head of the manufacturing department serves concurrently as the manager of the factory.

The Solvay process is used in this factory for manufacturing soda, and the work is done by machinery. The daily output is, on the average, 40 tons, but there is every possibility of this quantity being doubled.

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The Pacific Alkali Works may be said to be very favourably 385
situated for the manufacture of soda. Salt, coal and limestone
may be supplied in abundance from the environing districts.
Ammonia sulphate is the only material that should be imported
from England or the United States.

The Pacific workers fall into nine groups according to the 463
factory regulations: (1) mechanics (2) electricians (3) black-
smiths (4) firemen (5) carpenters (6) masons (7) common 385
workers (8) apprentices and (9) servants. However, they may
be classified according to the nature of work into the follow-
ing:— (1) mechanics (2) firemen (3) common workers and (4)
apprentices. To these may be added also foremen and assistants.

The duty of the foreman is to direct workers. The assistant
being in charge of chemical analysis, he should, therefore,
possess some knowledge of elementary English, mathematics and
chemistry. Formerly the assistants were usually graduates of
primary or even middle schools, but recently the factory has
begun to train its own assistants and any person having some
knowledge of English and arithmetic is admitted. He who has
had sufficient training and practice will be promoted to the class
of assistants. The skilled workers include mechanics, black-
smiths, electricians, carpenters, and masons. Firemen form a
special class of their own. Apprentices are trained in all kinds
of skilled work. The term of apprenticeship is three years,
after which every apprentice is required to work in the factory
for three years, and a certificate is issued to each. Any one
who leaves before that period must pay expenses hitherto incurred
for him by the factory. The common workers include store-room
keepers, watchmen, servants, porters and coolies. Their work is
subject to change. Besides the workers mentioned, four kinds of
work in the factory are generally consigned to contractors; they
are the lime kiln, stone breaking, loading and unloading of raw
materials and temporary or emergent work. The former three
are executed under a long term contract and not considered as
the work of the factory proper, while the latter is frequently
undertaken by the workers in the factory in their leisure hours
with a view to getting some extra pay.